

---

# New Infrageneric Taxa of *Corispermum* L. (Chenopodiaceae)

Sergei L. Mosyakin

N. G. Kholodny Institute of Botany, 2 Tereshchenkivska Str., Kiev, 252601 Ukraine

---

**ABSTRACT.** Two new infrageneric taxa of *Corispermum* L. (Chenopodiaceae) are described: sections *Patellisperma* and *Declinata*. Geographical distributions and taxonomic comments are provided.

*Corispermum* L. (Chenopodiaceae, Corispermeae) is a relatively compact and clearly defined genus consisting of ca. 60 almost obligately psammophytic species distributed primarily in the arid regions of Asia, with some species also native to temperate Europe, northern Asia, and North America. Unfortunately, with the exception of three series described by Klokov (1960) in his monograph of some East European species, no infrageneric system has been proposed for this genus.

The present paper may be regarded as the preliminary outline of the infrageneric classification of *Corispermum* (at the sectional level), since the proper placement of many insufficiently known species (e.g., sometimes represented in herbaria only by type collections) is not completely clear and remains a task for further study. It is especially true for Central and East Asian species (see Iljin, 1929; Tsien Cho-po & Ma Cheng-gung, 1979).

**Corispermum** sect. **Patellisperma** Mosyakin, sect. nov. TYPE: *C. patelliforme* Iljin.

Fructus rotundati vel subrotundati, apteri, erostrati. Perianthium triphyllum. Folia lata; oblongo-elliptica, oblongo-obovata, oblanceolata vel elliptica.

Fruit (achene) patelliform (saucer-shaped), rotundate or almost rotundate in outline, wingless, without distinct apical beak (remains of style bases). Leaves comparatively broad, from almost obovate to oblanceolate.

*Species.* This is a monotypic section consisting only of the species *Corispermum patelliforme* Iljin.

*Distribution.* Arid regions of Central Asia (western China, Mongolia).

This section seems to be the most primitive one within the genus. *Corispermum patelliforme* has some archaic characters, such as comparatively broad leaves with 3–5 veins (in most of the other representatives of *Corispermum* the leaves are 1-veined, rarely 3-veined, and more narrow), leaflike bracts,

wingless patelliform, almost round in outline fruit without protruding style bases, and nonreduced perianth segments. It seems to be quite close to the hypothetical ancestor of the genera *Corispermum* and *Anthochlamys* Fenzl.

**Corispermum** sect. **Declinata** Mosyakin, sect. nov. TYPE: *C. declinatum* Stephan ex Iljin.

Fructus elongati; glabri vel stellato pilosi, apteri vel alati; apice rotundati vel saepissime rostrati, basi stylosum apiculati vel subtruncati. Perianthium plerumque monophyllum.

Fruits elongate, at least 2 (1.5) times as long as wide; glabrous or covered with branched (sometimes almost stellate) hairs; winged or wingless at margin; in most cases with triangular apex protruding toward bases of styles, sometimes rotundate. Perianth segment 1.

*Species.* This section consists of at least two species: *Corispermum declinatum* Stephan ex Iljin and *C. tylocarpum* Hance sensu lato (including *C. rostratum* Baranov & B. Skvortsov and *C. gmelinii* Bunge).

*Distribution.* Arid regions of Asia (southern Siberia, Mongolia, China, Kazakhstan); also adventive in eastern Europe (*C. declinatum*).

This deviate section possibly is closely related to some Asian species of *Corispermum* sect. *Corispermum*, namely *C. sibiricum* Iljin and *C. candelabrum* Iljin. Some other Chinese species of *Corispermum* (*C. macrocarpum* Bunge ex Maximovicz, *C. stenolepis* Kitagawa, *C. platypterum* Kitagawa, and *C. huanghoense* Tsien & C. G. Ma) also have an elongate fruit body, and seem to be related to the section *Declinata*. However, their fruits are broadly winged and often emarginate at the apex. After additional investigation these species may possibly be separated into a section or subsection of their own.

*Corispermum declinatum* has been constantly erroneously cited as "*C. declinatum* Stephan ex Steven." However, Steven (1817) never accepted *C. declinatum*: he cited it as a synonym of *C. hyssopifolium* var. *a*. The first valid publication of the name appeared in Iljin (1928). Thus, the combination *C. declinatum* var. *tylocarpum* (Hance)



Tsien & C. G. Ma (1979) is invalid, because *C. declinatum* was described later than *C. tylocarpum*.

**Corispermum** sect. **Corispermum**. TYPE: *C. hyssopifolium* L. (lectotype of the genus).

This section should be divided into at least seven subsections. However, the description of these subsections should be accompanied by a detailed analysis of taxonomic relationships at the species level. The genus is currently under revision, and new subsections will be validated in the forthcoming treatments for European and North American taxa.

*Acknowledgments.* I thank Bruce D. Parfitt and Amy Scheuler McPherson for helpful comments and discussion. This article was prepared during my recent visit to the Missouri Botanical Garden, and I am grateful to the staff for their hospitality.

#### Literature Cited

- Iljin, M. M. 1928. *Corispermum declinatum* Steph., kak novyy sornyak v posevakh Evropeyskoy chasti SSSR (*Corispermum declinatum* as a new weed in the European part of the USSR). Trudy Prikl. Bot. Genet. Selektiv. (Leningrad) 19(2): 69–72.
- . 1929. Novye vidy roda *Corispermum* L. (Corispermum generis species novae). Izv. Glavn. Bot. Sada SSSR 28: 638–654.
- Klokov, M. V. 1960. O dneprovskikh i nekotorykh drugikh vidakh roda *Corispermum* L. (De Corispermis Borysthenicis necnon aliis nonnullis.) Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 20: 90–136.
- Steven, C. 1817. Observationes in Plantas Rossicas et descriptiones specierum novarum. Mem. Soc. Imp. Naturalistes Moscou 5: 334–338.
- Tsien Cho-po & Ma Cheng-gung. 1979. *Corispermum* L. Pp. 50–75 in Flora Reipublicae Popularis Sinicae. Tomus 25(2). Beijing.